

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: ANDY KASHNIKOW Examiner #: 60484 Date: 11/1/02
Art Unit: 3700 Phone Number 308-1137 Serial Number: 09 919,750
Mail Box and Bldg/Room Location: CP2-2A01 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

LIT SEARCH FOR US PATENT
No. 5,931,855

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>Solomon</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: <u>305-5932</u>	AA Sequence (#) _____	Dialog _____
Searcher Location: <u>CP2 2C08</u>	Structure (#) _____	<u>Questel/Orbit</u>
Date Searcher Picked Up: <u>11-4-02</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>11-4-02</u>	Litigation <u>✓</u>	<u>Lexis/Nexis</u>
Searcher Prep & Review Time: <u>7</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>4</u>	Other _____	Other (specify) _____

(C) QUESTEL 1994
QUESTEL.ORBIT (TM) 1998

**** SS 1: Results 1**

1 / 1 PLUSPAT - @QUESTEL-ORBIT - image
PN - US5931855 A 19990803 [US5931855]
TI - (A) Surgical methods using one-way suture
PA - (A) HOFFMAN FRANK (US)
IN - (A) BUNCKE HARRY J (US)
AP - US85988797 19970521 [1997US-0859887]
PR - US85988797 19970521 [1997US-0859887]
IC - (A) A61B-017/04
EC - A61B-017/06S
A61B-017/06A
ICO - K61B-017/04A7
K61B-017/06A3
K61B-017/06D
K61B-019/00G2
PCL - ORIGINAL (O) : 606228000; CROSS-REFERENCE (X) : 606215000
606216000 606224000
DT - Corresponding document
CT - US3123077; US5123913; US5222976; US5425746; US5425747; US5450860;
US5584859
H. Han, et al. "Mating and Piercing Micromechanical Structures for
Surface Bonding Applications".

Micro ElectroMechanical Systems (MEMS-91), Jan. 31--Feb. 2, 1991,
CH2957-Sep. 1991, pp. 253-258, 1991.

H. Buncke, et al. "The Suture Repair of One-Millimeter Vessels".
Micro-Vascular Surgery, pp. 24-35 (esp. p. 34), 1966.
STG - (A) United States patent
AB - Methods are disclosed for binding together human or animal tissue
using one-way sutures having barbs on their exterior surfaces,
allowing passage of a needle-drawn suture in one direction through
tissue, but not in the opposite direction. In closing a wound,
the sutures are passed through tissue at each of the opposed sides
of the wound, forming suture pairs in which trailing ends of the
sutures are juxtaposed in the wound. The number of suture pairs is
selected in accordance with the size of the wound. The wound is
closed and ends of the sutures of each suture pair are secured
together, which may be by heat bonding or surgical knots. In a
variation of this procedure double-armed sutures are used. In
another variation detachable needles are used to leave the barbed
sutures below the skin. The invention avoids loop stitching,
minimizing scarring. In addition to wounds at the skin surface,
the method is useful in binding together severed tendons or other
internal tissue of a patient, providing considerable tensile
strength with a minimum of suturing and locating the tensile
support precisely where needed. In facelifts and other cosmetic
operations, the sutures are used to provide lines of tissue
support beneath the skin.

1 / 1 LGST - @LEGSTAT
PN - US 5931855 [US5931855]
AP - US 859887/97 19970521 [1997US-0859887]
DT - US-P
ACT - 19970521 US/AE-A
APPLICATION DATA (PATENT)
US 859887/97 19970521 [1997US-0859887]

19990803 US/A
PATENT

20020806 US/RF
REISSUE APPLICATION FILED
20010731

UP - 2002-35

1 / 1 CRXX - ©CLAIMS/RRX
PN - 5,931,855 A 19990803 [US5931855]
PA - Hoffman Frank
ACT - 20010731 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20020806
REISSUE REQUEST NUMBER: 09/919750
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 3731

Reissue Patent Number:

1 / 1 PAST - ©Thomson Derwent
AN - 200232-001616
PN - 5931855 A [US5931855]
OG - 2002-08-06
ACT - REISSUE APPLICATION FILED

Selected file: INPADO

**** SS 1: Results 7**

1 / 7 INPADO - ©INPADO
PN - AU 743056 B2 20020117 [AU-743056]
TI - SURGICAL METHODS USING ONE-WAY SUTURE
IN - BUNCKE HARRY J
PA - HARRY J BUNCKE
AP - AU 75900/98-A 19980521 [1998AU-0075900]
PR - US 859887/97-A 19970521 [1997US-0859887]
WO 9810478/98(US)-W 19980521 [1998WO-US10478]
IC - A61B-017/04

2 / 7 INPADO - ©INPADO
PN - AU 75900/98 A1 19981211 [AU9875900]
TI - SURGICAL METHODS USING ONE-WAY SUTURE
IN - BUNCKE HARRY J
PA - BUNCKE HARRY J
AP - AU 75900/98-A 19980521 [1998AU-0075900]
PR - US 859887/97-A 19970521 [1997US-0859887]
WO 9810478/98(US)-W 19980521 [1998WO-US10478]
IC - A61B-017/04

3 / 7 INPADO - ©INPADO
PN - EP 991359 A1 20000412 [EP-991359]
TI - SURGICAL METHODS USING ONE-WAY SUTURE
LA - ENG
IN - BUNCKE HARRY J [US]
PA - BUNCKE HARRY J [US]
AP - EP 98923664/98-A 19980521 [1998EP-0923664]
PR - WO 9810478/98(US)-W 19980521 [1998WO-US10478]

US 859887/97-A 19970521 [1997US-0859887]
IC - A61B-017/04
DS - AT* CH* DE* DK* FI* FR* GB* IE* IT* LI* NL* SE*

1 / 1 LEGALI - @LEGSTAT
PN - EP 991359 [EP-991359]
AP - EP 98923664/98 19980521 [1998EP-0923664]
DT - EP-P
ACTE - 19980521 EP/AE-A
EP-APPLICATION
EP 98923664/98 19980521 [1998EP-0923664]

20000412 EP/AK-A1 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH
REPORT:
AT CH DE DK FI FR GB IE IT LI NL SE

20000412 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

20000412 EP/17P [+]
REQUEST FOR EXAMINATION FILED
19991221

20010801 EP/RIC1
CLASSIFICATION (CORRECTION)
7A 61B 17/04 A, 7A 61B 17/06 B

20010808 EP/AK-A4 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A SUPPLEMENTARY SEARCH
REPORT:
AT CH DE DK FI FR GB IE IT LI NL SE

20010808 EP/A4 [+]
SUPPLEMENTARY SEARCH REPORT
20010622

UP - 2001-32

4 / 7 INPADOC - @INPADOC
PN - EP 991359 A4 20010808 [EP-991359]
TI - SURGICAL METHODS USING ONE-WAY SUTURE
LA - ENG
IN - BUNCKE HARRY J [US]
PA - BUNCKE HARRY J [US]
AP - EP 98923664/98-A 19980521 [1998EP-0923664]
PR - WO 9810478/98(US)-W 19980521 [1998WO-US10478]
US 859887/97-A 19970521 [1997US-0859887]
IC - A61B-017/04; A61B-017/06
DS - AT* CH* DE* DK* FI* FR* GB* IE* IT* LI* NL* SE*

1 / 1 LEGALI - @LEGSTAT
PN - EP 991359 [EP-991359]
AP - EP 98923664/98 19980521 [1998EP-0923664]
DT - EP-P
ACTE - 19980521 EP/AE-A
EP-APPLICATION
EP 98923664/98 19980521 [1998EP-0923664]

20000412 EP/AK-A1 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH

REPORT:
AT CH DE DK FI FR GB IE IT LI NL SE

20000412 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

20000412 EP/17P [+]
REQUEST FOR EXAMINATION FILED
19991221

20010801 EP/RIC1
CLASSIFICATION (CORRECTION)
7A 61B 17/04 A, 7A 61B 17/06 B

20010808 EP/AK-A4 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A SUPPLEMENTARY SEARCH
REPORT:
AT CH DE DK FI FR GB IE IT LI NL SE

20010808 EP/A4 [+]
SUPPLEMENTARY SEARCH REPORT
20010622

UP - 2001-32

5 / 7 INPADOC - @INPADOC

PN - NZ 501224 A 20020301 [NZ-501224]
TI - A ONE-WAY SUTURE HAVING BARBS ON THEIR EXTERIOR SURFACES AND A
NEEDLE ON ONE OR BOTH ENDS HAVING THE CAPABILITY OF PUTTING TENSION
IN THE TISSUE WHEN TENSION IS PLACED ON THE TRAILING END OF THE
SUTURE
IN - BUNCKE HARRY J
PA - HARRY J BUNCKE
AP - NZ 501224/98-A 19980521 [1998NZ-0501224]
PR - US 859887/97-A 19970521 [1997US-0859887]
WO 9810478/98(US)-W 19980521 [1998WO-US10478]
IC - A61B-017/06

6 / 7 INPADOC - @INPADOC

PN - US 5931855 A 19990803 [US5931855]
TI - SURGICAL METHODS USING ONE-WAY SUTURE
IN - BUNCKE HARRY J [US]
PA - HOFFMAN FRANK [US]
AP - US 859887/97-A 19970521 [1997US-0859887]
PR - US 859887/97-A 19970521 [1997US-0859887]
IC - A61B-017/04

1 / 1 LEGALI - @LEGSTAT

PN - US 5931855 [US5931855]
AP - US 859887/97 19970521 [1997US-0859887]
DT - US-P
ACTE - 19970521 US/AE-A
APPLICATION DATA (PATENT)
US 859887/97 19970521 [1997US-0859887]

19990803 US/A
PATENT

20020806 US/RF
REISSUE APPLICATION FILED
20010731

UP - 2002-35

7 / 7 INPADOC - @INPADOC

PN - WO 9852473 A1 19981126 [WO9852473]
TI - SURGICAL METHODS USING ONE-WAY SUTURE
LA - ENG
IN - BUNCKE HARRY J [US]
PA - BUNCKE HARRY J [US]
AP - WO 9810478/98(US)-A 19980521 [1998WO-US10478]
PR - US 859887/97-A 19970521 [1997US-0859887]
IC - A61B-017/04
DS - AU* BR* CA* JP* MX* NZ* AT BE CH CY DE DK ES FI FR GB GR IE IT LU
MC NL PT SE

1 / 2 LEGALI - @LEGSTAT

PN - CA 2290533 [CA2290533]
DT - CA-P
ACTE - 19991122 CA/REFW-P
CORRESPONDS TO PCT APPLICATION
<WO 9852473> [WO9852473]
UP - 2000-42

2 / 2 LEGALI - @LEGSTAT

PN - WO 9852473 [WO9852473]
AP - WO 9810478/98(US) 19980521 [1998WO-US10478]
DT - WO-P
ACTE - 19980521 WO/AE-A
APPLICATION DATA
WO 9810478/98(US) 19980521 [1998WO-US10478]

19981126 WO/AK-A1 [+]
DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH SEARCH
REPORT
AU BR CA JP MX NZ

19981126 WO/AL-A1 [+]
DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A PUBLISHED
APPLICATION WITH SEARCH REPORT
AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

19981126 WO/A1 [+]
PUBLICATION OF THE INTERNATIONAL APPLICATION WITH THE
INTERNATIONAL SEARCH REPORT

19990304 WO/DFPE
REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF
19TH MONTH FROM PRIORITY DATE

19990414 WO/121
EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN
THIS APPLICATION

19991122 WO/ENP-AA
ENTRY INTO THE NATIONAL PHASE IN:
<CA 2290533>

20000303 WO/NENP
NON-ENTRY INTO THE NATIONAL PHASE IN:
JP 1998550664
<JP>

UP - 2000-42

Session finished: 04 NOV 2002 Time 16:18:54

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

5931855

August 3, 1999

Surgical methods using one-way suture

REISSUE: July 31, 2001 - Reissue Application filed Ex. Gp.: 3731; Re. S.N.
09/919,750 August 6, 2002

APPL-NO: 859887 (08)

FILED-DATE: May 21, 1997

GRANTED-DATE: August 3, 1999

ENGLISH-ABST:

Methods are disclosed for binding together human or animal tissue using one-way sutures having barbs on their exterior surfaces, allowing passage of a needle-drawn suture in one direction through tissue, but not in the opposite direction. In closing a wound, the sutures are passed through tissue at each of the opposed sides of the wound, forming suture pairs in which trailing ends of the sutures are juxtaposed in the wound. The number of suture pairs is selected in accordance with the size of the wound. The wound is closed and ends of the sutures of each suture pair are secured together, which may be by heat bonding or surgical knots. In a variation of this procedure double-armed sutures are used. In another variation detachable needles are used to leave the barbed sutures below the skin. The invention avoids loop stitching, minimizing scarring. In addition to wounds at the skin surface, the method is useful in binding together severed tendons or other internal tissue of a patient, providing considerable tensile strength with a minimum of suturing and locating the tensile support precisely where needed. In facelifts and other cosmetic operations, the sutures are used to provide lines of tissue support beneath the skin.